

Revised 1946

Metal Lath Specifications

—for
**BETTER PLASTERING
and
CONCRETE STUCCO**

METAL LATH SPECIFICATIONS
Furring and Lathing—A. I. A. File No. 20-B-1

Approved By The
METAL LATH MANUFACTURERS ASSOCIATION



METAL LATH

SPECIFICATIONS



Revised 1946

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Engineers Building—Cleveland 14, Ohio

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Metal Lath Specifications

for

Safe, Permanent and Economical Construction

THESE specifications cover the quality of materials and methods of application for all types of *Metal Lath*: namely, *Expanded*, *Ribbed* and *Sheet*. All Metal Lath, as indicated in the definitions elsewhere in these specifications, is slit and expanded, or slit, punched, or otherwise formed with or without partial expansion, from metal sheets.

Attention is called to the fact that these specifications are written upon the basis of *weight only*, which will both insure correct installation and facilitate accurate inspection in the field. This basis was adopted at one of the early conferences of producers, distributors and users of Metal Lath held at the U. S. Department of Commerce.—“*Simplified Practice Recommendation R3-44*” is the most recent publication of the U. S. Bureau of Standards covering Metal Lath and Metal Plastering Accessories.

These Specifications are written in detail but may be abbreviated as desired, or this document may be referred to as follows:

“All Metal Lathing shall be done in accordance with the requirements for the corresponding class of work as specified in Specifications of the Metal Lath Manufacturers Association, dated 1946, provided that where several methods of construction are shown, the contractor shall secure approval of the type he wishes to use before proceeding with the work. The lath to be used shall be as follows: etc.” (Here insert weight, type and finish of lath desired.)

Any specification taken from these pages will insure not only *safe* and *permanent* construction at an *economical* cost, but will establish a basis for maximum competition among all manufacturers of Metal Lath.



Definitions of Terms

The Following Definitions for Metal Lath Construction Have Been Established by Long Usage:

(A) Metal Lath

(A)—Metal Lath is of three types, designated as Diamond Mesh (*Expanded*), Rib or Sheet. Metal Lath is slit and expanded, or slit, punched or otherwise formed, with or without partial expansion, from copper alloy or galvanized metal sheets. Metal Lath is coated with rust inhibitive paint after fabrication when it is not made from galvanized sheets.

(B) Diamond Mesh or Flat Expanded Metal Lath

(B)—This term is used to indicate a Metal Lath slit and expanded from metal sheets into such a form that there will be no rib in the lath.

(C) Rib

(C)—An unexpanded portion of Metal Lath which leaves the plane of the Lath at a certain angle and returns at the same angle, or a separately attached stiffening member.

(D) $\frac{3}{8}$ " Rib Metal Lath

(D)—A combination of expanded Metal Lath and ribs of a total depth of approximately $\frac{3}{8}$ " measured from top inside of the lath to the top side of the rib, or other Metal Lath of equal rigidity.

(E) Flat Rib Metal Lath

(E)—A combination of expanded Metal Lath and ribs in which the rib has a total depth of less than $\frac{3}{16}$ " measured as above.

(F) $\frac{3}{4}$ " Rib Metal Lath

(F)—A combination of expanded Metal Lath and ribs of a total depth of approximately $\frac{3}{4}$ " measured from the top inside of the Lath to the top side of the rib.

(G) Self-Furring Metal Lath

(G)—A Metal Lath so formed that portions of it extend from the face of the Lath so that it is separated at least $\frac{1}{4}$ " from the background to which it is attached.

(H) Sheet Lath

(H)—A Metal Lath, slit, or punched or otherwise formed from metal sheets, with or without partial expansion.

(I) Expanded Metal Reinforcing (Stucco Mesh)

(I)—A reinforcement similar to Metal Lath but cut and expanded from heavier metal sheets and especially suitable for exterior stucco work and for reinforcing cement base for tile and mosaic floors.

(J) Paper Backed Metal Lath or Expanded Metal Reinforcing

(J)—A factory-assembled combination of any of the preceding defined types of Metal Lath or Expanded Metal Reinforcing with paper, fibre, or other backing, the assembly being used as a plaster or stucco base.

(K) Contact Ceiling

(K)—A ceiling composed of Metal Lath and plaster which is secured in direct contact with the construction above, without the use of runner channels or furring.

(L) Furred Ceiling

(L)—A ceiling composed of Metal Lath and plaster which is attached by means of steel channels, or rods, or wood furring strips, in direct contact with the construction above.

Definitions of Terms (Continued)

(M)—A ceiling composed of Metal Lath and plaster and steel channels which is suspended from and is not in direct contact with floor or roof construction above.

(N)—The vertical members which carry the steel framework of a suspended ceiling.

(O)—The heaviest horizontal members, supported by hangers, in a suspended ceiling and to which the furring channels or rods are attached; also may be attached direct to the construction above.

(P)—The smallest horizontal members of a suspended ceiling, applied at right angles to the underside of carrying channels and to which the Metal Lath is attached; also the smallest horizontal members in a furred ceiling; also, in general, the separate members used to space Metal Lath from any surfaces over which it is applied.

(Q)—A strip of Diamond Mesh Metal Lath bent to form a right angle and applied as corner reinforcement at all internal vertical and horizontal angles of any interior surfaces to be plastered, including wood lath, gypsum lath, fibre-board lath, and junctures at wall and ceiling intersections of dissimilar plaster bases; also used in angles where ends of sheets of lath abut.

(R)—A narrow strip of Diamond Mesh Metal Lath applied as a reinforcement over joints between sheets of gypsum lath, fibre-board lath and similar materials used as plaster bases, or at junctures between such bases.

(M) Suspended Ceiling

(N) Hangers

(O) Runner or Carrying Channels

(P) Furring Channels or Rods

(Q) Cornerite

(R) Stripite

Material

(A)—All Metal Lath shall be made from copper alloy steel sheets, and shall be given a protective coating of rust-inhibitive paint after fabrication, or shall be made from galvanized sheets.

All Metal Lath shall be specified by weight per square yard (except $\frac{3}{4}$ " Rib Lath which shall be specified by weight per square foot), and shall be of the types and weights as set forth elsewhere in these specifications. All weights are exclusive of paper, fibre, or other backing.

(B)—All Expanded Metal Reinforcing (Stucco Mesh) shall be made from steel sheets, and shall be given a protective coating of rust-inhibitive paint after fabrication.

(C)—Channels shall be of steel and shall be given a protective coating of rust-inhibitive paint. Width and weight of channels shall be as set forth elsewhere in these specifications.

(D)—Prefabricated Metal Studs shall be formed from not less than 16 gage steel, or 7 gage wire, and shall be given a protective coating of rust-inhibitive paint. Width of studs shall be as set forth elsewhere in these specifications.

(E)—Metal plastering Accessories (small-nose and bull-nose corner beads, base screed, concealed picture mold, and metal casings) shall be formed from galvanized steel sheets of not less than 26 gage.

(F)—Wire shall be galvanized, and gage shall be as set forth elsewhere in these specifications.

(A) Metal Lath

(B) Expanded Metal Reinforcing (Stucco Mesh)

(C) Channels

(D) Metal Studs

(E) Accessories

(F) Wire

PLASTERING for BEAUTY—

TABLE I **TYPES AND WEIGHTS OF METAL LATH, AND SPACING OF SUPPORTS (CENTER TO CENTER (1))**

Type of Lath	Minimum Weight of Lath (Lbs. Per Sq. Yd.)	Wood	Maximum Allowable Spacing of Supports (Inches)			
			Vertical Supports		Horizontal Supports	
			Metal		Wood or Concrete	Metal
			Solid Partitions	Others		
Diamond Mesh	2.5	16	16	12	0	0
	3.4	16	16	16	16	13½
Flat Rib	2.75	16	16	16	16	12
	3.4	19	24	19	19	19
¾" Rib (2) (3)	3.4	24	24	24	24	24
	4.0	24	24	24	24	24
Sheet Lath	4.5	24	24	24	24	24

(1) Lath may be used on any spacings, center to center, up to the maximum shown for each type and weight.

(2) Rod-stiffened or V-stiffened Metal Lath of equal rigidity and weight is permissible on same spacings as ¾" Rib Metal Lath.

(3) 3.4 lb., ¾" Rib Lath is permissible under Concrete Joists at 27" c.c.

NOTE: For exterior stucco work, Expanded Metal Reinforcing weighing either 1.8 or 3.6 pounds per square yard may be used. Attachments shall not be greater than 6" on centers vertically.

TABLE II **LOADING TABLES FOR ¾" RIB LATH—(See Note Below)**

Thickness of Slab Above Mesh	Wt. of Concrete (Lbs. Per Sq. Ft.)	Wt. of Lath (Lbs. Per Sq. Yd.)	SAFE SUPERIMPOSED LOADS (Lbs. Per Sq. Ft.)			
			SPAN IN INCHES			
			12	16	19	24
2"	24	3.4	950	536	380	238
2"	24	4.0	1090	613	433	271
2½"	30	3.4	1200	675	479	300
2½"	30	4.0	1360	766	544	340
3"	36	3.4	1450	815	578	362
3"	36	4.0	1650	930	625	412

NOTE: ¾" and ¾" Rib Metal Laths are widely used as combination form, centering and reinforcing for slabs in steel construction. Weight of the Lath to be used may be determined from Tables II (above) and II-a (below).

TABLE II (α) **LOADING TABLES FOR ¾" RIB LATH—(See Note Above)**

Thickness of Slab Above Mesh	Wt. of Concrete (Lbs. Per Sq. Ft.)	Wt. of Lath (Lbs. Per Sq. Ft.)	Max. Span for Cent. Wet Concrete	SAFE SUPERIMPOSED LOADS (Lbs. Per Sq. Ft.)					
				SPAN IN FEET					
				3	4	5	6	7	8
2"	24	.60	3' 3"	413	220	130	81	51	32
		.75	3' 7"	516	277	167	107	70	47
2½"	30	.60	2' 11"	536	286	170	107	69	44
		.75	3' 3"	669	361	218	140	93	63
3"	36	.60	2' 8"		353	211	133	87	57
		.75	2' 11"		445	270	174	117	80
3½"	42	.60	2' 5"		420	251	160	105	69
		.75	2' 9"		530	322	209	141	96
4"	48	.60	2' 3"		487	292	187	123	81
		.75	2' 6"		616	374	243	164	113

Metal Lath and Plaster Solid Partitions with Channel Studs

(A)—All Metal Lath shall be specified by weight per square yard in accordance with the spacing of supports as given in *Table III*. Weights given are exclusive of paper, fibre, or other backing.

SPACINGS OF SUPPORTS FOR SOLID PARTITIONS

TYPE OF METAL LATH	Weight (Lbs. Per Sq. Yd.)	Spacing of Supports (Inches)
Diamond Mesh Metal Lath	2.5	16
	3.4	16
Flat Rib Metal Lath	2.75	16
	3.4	24 (a)

NOTE

(a) This spacing permissible for Solid Partitions not exceeding 16' in height. For greater heights, permanent horizontal stiffener channels or rods must be provided on channel side of partitions, every 6' vertically, or else spacing shall be reduced 25%.

(B)—Size of channel studs shall be determined according to height of partition as set forth in *Table IV*. Spacing of channel studs shall be determined according to type and weight of Metal Lath used as set forth in *Table III*.

SIZES OF COLD-ROLLED CHANNEL STUDS AND THICKNESSES OF PARTITIONS FOR VARIOUS HEIGHTS OF METAL LATH SOLID PARTITIONS

Height Not to Exceed	Thickness of Partition	Size and Nom. Weight of Channels (Per 1000 Ft.)
14 ft.	2"	¾" 300 Lb.
16 ft.	2¼"	¾" 300 Lb.
18 ft.	2½"	¾" 300 Lb.
20 ft.	2¾"	¾" 300 Lb.
†24 ft.	3"	1½" 475 Lb.
†30 ft.	3½"	1½" 475 Lb.

NOTE: No limitations on length of these partitions for heights under 12'. Length, between columns, walls or other vertical structural members, shall not be greater than two times partition height when latter is 12' or more, nor greater than 1½ times height when latter exceeds 16'; nor greater than the height when it is 30' or more. For lengths exceeding these, thickness shall be increased 20%.

†For heights over 20' furnish horizontal cold-rolled channels or rod stiffeners on channel side of partition every 6' vertically.

(C)—(a) Studs shall be set in track channels, or stud clips or other means of alignment and attachment at both floor and ceiling shall be used, such as by inserting stud ends in holes cut in top of concrete or other masonry floors or punched in soffits of masonry ceiling, or by wire tying to 8d nails, driven into tops of wood floor runners or into ceiling joists; or where Metal Lath ceilings are used, upper ends of studs may be inserted into holes made in ceiling lath and studs wired to a pencil rod or channel secured to ceiling lath.

NOTE: Additional details on partition construction appear in the "Partition Handbook" issued by the Metal Lath Manufacturers Association. — Consult manufacturers' catalogs for specifications covering patented solid partition construction systems.

Specification No. 1

(A) *Weights of Metal Lath*

TABLE III

(B) *Size and Spacing of Supports*

TABLE IV

(C) *Assembly of Channel Studs*

Specification

No. 1

(Cont.)

(b) For removable partitions, lower end of studs shall be secured to track channels or special stud shoes attached to wood runners, or be set in holes bored into, or wire-tied to 8d nails driven into wood floor runners of proper width nailed to wood floor or ceiling joists, such runners to be secured to masonry floor by masonry nails or Rawl drives.

(c) Where two-piece studs are used they shall be spliced within 2' of ceiling by lapping not less than 8" with the flanges interlocked and securely wired in two places not less than 6" nor more than 12" apart. Where single-piece studs are used, they shall be of a length as to permit anchorage at top and bottom without material bowing when fully erected.

(d) Two channel studs, or their equivalent, continuous from floor to ceiling, shall in every case be placed adjacent to and at each side of vertical door bucks (four studs required per opening) and shall be so placed that space is provided between them and bucks for tying ends of Metal Lath sheets to such studs. Where metal or metal and wood bucks are used, and excepting where such bucks dispense with need of studs directly against bucks, such double channel studs shall be wire-tied to said bucks in a secure manner. Where wood bucks are used, two 8d nails shall be driven in pairs at intervals of 2', beginning 9" above floor, into the wood buck, and the double channel studs at each side securely wire-tied to said nails.

(e) A horizontal reinforcement consisting of a $\frac{1}{8}$ " x $1\frac{1}{4}$ " flat bar or a $\frac{3}{8}$ " diameter rod or a perforated flat strip shall be run across the top of each door opening on the channel side of the partition and extend continuously past the double studs and just beyond the first single studs at each side. This reinforcement shall be saddle-tied to each full stud it crosses and to jack studs over openings. Such strip shall be located about 6" to 8" above the top of the door.

(f) Solid partitions shall be temporarily braced on the channel side at intervals not exceeding 5' vertically, before application of plaster. Use 2" x 4" or other stiff bracing when unsanded gypsum is used.

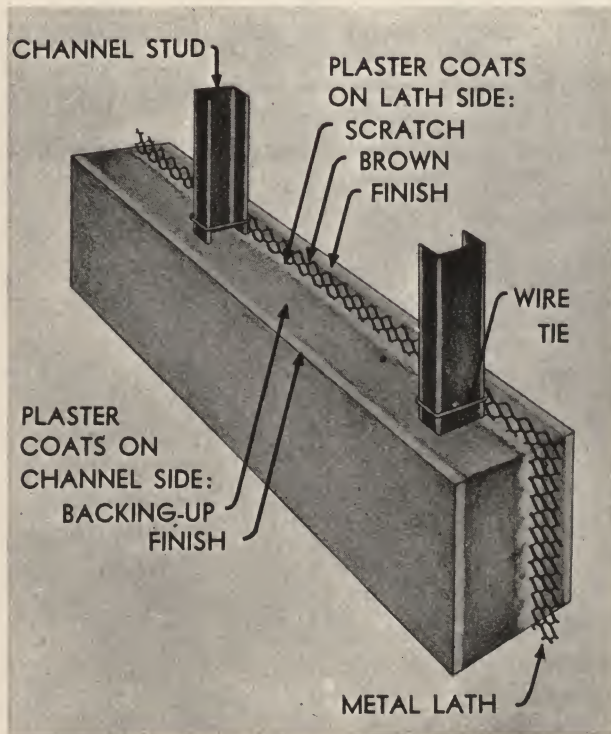
(D)—Erection of Metal Lath

(D)—(a) Metal Lath shall be applied to only one side of the channel studs with the long dimension of the sheet across the studs; Rib Metal Lath with the ribs against the studs.

(b) Sheets shall be secured to the channel studs by wire ties at intervals not exceeding 6", and a tie shall be placed where sides of sheets lap at supports.

Equivalent clips or other attachment devices may be used instead of wire ties.

(c) Diamond Mesh Metal Lath shall be lapped at sides not less than $\frac{1}{2}$ ", and at ends not less than 1".



Solid Metal Lath and Plaster Channel Stud Partition, Showing Component Parts and Plaster Coats. Usually 2 Inches Thick, But May Be Constructed of Thicknesses Up to $3\frac{1}{2}$ Inches.

—METAL LATH for STRENGTH

End laps of sheets should generally occur only over supports; if between, ends of sheets shall be securely laced together with No. 18 gage galvanized annealed wire.

(d) Rib Metal Lath and Sheet Lath shall be lapped at sides by nesting outside ribs or selvage. Rib Metal Lath shall lap 1" at ends and Sheet Lath by lapping one series of loops and nesting tops and bottom of lapping sheets.

(e) All Metal Lath shall be started one stud away from corner and be bent into the corner and carried on to the abutting wall to avoid a joint at juncture of walls, provided that where Rib Metal Lath or Sheet Lath is used it shall be butted into all corners, and Cornerite shall be applied over the butting lath in such angles and shall be wired at 6" intervals along each edge in all corners; Cornerite shall not be fastened at its corner, but only along each edge. Cornerite is not required for Diamond Mesh Metal Lath.

(f) Metal Lath shall be placed so that the lower sheet laps over the upper (not vice versa).

(E)—Tie wire for attaching Metal Lath to channel studs, furring, etc., shall not be less than No. 18 gage galvanized annealed wire, spaced not to exceed 6" on centers.

(F)—Metal base screed or picture mold shall be wired to channel studs through holes provided in screed for that purpose and, where necessary, shimmed-out to line. Metal trim of the integral type shall be aligned, leveled and well secured to tops of floor slabs. Attachments shall be masonry nails penetrating at least 1/2" into slab and spaced at 12" centers; or every third nail shall be omitted and Rawl drives or equal anchors shall be used (consult specifications of metal base manufacturers).

(G)—(a) Metal door bucks shall be erected in accordance with specifications of manufacturers thereof and be well secured to floor and ceiling construction by Rawl drives, expansion bolts, lag screws or other equally strong and permanent devices.

(b) Wood door bucks shall be full dimension at least 3/4" greater than partition thickness and made from straight grained lumber substantially free from knots. Bucks shall be of out-to-out dimension which will permit casing to cover joint between buck and plaster at least 1".

(c) Bottom of wood door bucks shall in every case be securely nailed to wood floors with at least two 10d nails each side and be secured to masonry floors by attaching metal plate or socket to bottom and securing to floor by Rawl drives, stub or hardened masonry nails; or by toe-nailing to permanent plugs set in floor.

(d) Bucks shall be carefully plumbed and, unless separately anchored to underside of floor above, shall be kept braced until plaster has set.

(H)—Wood grounds shall be set true to line and shall consist of wood strips of proper thickness and 2" nominal width placed on each side of the partition and wired or nailed to each other, (or wired to studs or nailed to blocks which shall be securely wired or clamped to channels).

Specification

No. 1

(Cont.)

(E) Tie Wire

(F) Metal Base Screed, Picture Mold, Integral Metal Trim

(G) Bucks

(H) Wood Grounds

PLASTERING for BEAUTY—

(I) Electric
Conduit,
Switch Boxes,
Etc.

(I)—Provide standard shallow electrical convenience outlets, devices, etc., not exceeding 1½" in depth for 2-Inch Solid Partitions wherever outlets, etc., are shown on such partitions.

NOTE: To minimize sound conduction it is recommended that telephone boxes, etc., in adjoining hotel rooms, apartments, etc., be installed on outside walls of the room or on non-communicating partitions.

(J) Plastering

(J)—(a) Plastering shall be gypsum, lime, Keene's cement, or Portland cement or combinations of them and shall cover the nearest point or surface of Metal Lath by ⅝" of mortar.

(b) Plastering shall always begin at bottom of the partition when height exceeds 9' to insure a straight and true wall. For lesser heights plastering, whenever possible, shall begin at bottom.

(c) Plastering shall extend down to floor line and be filled solid between all grounds; and, (where required to insure minimum of sound transmission between rooms) shall extend direct to underside of masonry ceiling slab.

(d) Where hollow metal bucks are used they shall be filled solid as plaster is carried upward.

(e) Temporary bracing shall not be removed until scratch coat on lath-side of partition has set. Scratch coat on channel side of partition shall not be applied until scratch coat on lath-side has set dry.

NOTE: Portland cement plaster is recommended for basement partitions, shower stall enclosures and elsewhere in which continued or large amounts of moisture are experienced.

Specification No. 2

(A) *Weights
of Metal Lath*

Metal Lath and Metal Stud Hollow Plastered Partitions (NON-BEARING)

(Consult manufacturers' catalogs for specifications covering patented and other prefabricated Metal Stud Hollow Partitions).

(A)—(a) All lath shall be specified by weight per square yard in accordance with the spacing of supports as given in the table below. Weights given are exclusive of paper, fibre, or other backing.

**SPACING OF SUPPORTS FOR METAL
STUD HOLLOW PARTITIONS**

TYPE OF METAL LATH	Weight (Lbs. per Sq. Yd.)	Spacings of Metal Stud Supports (In.)
Diamond Mesh Metal Lath	2.5	12
	3.4	16
Flat Rib Metal Lath	2.75	16
	3.4	19
¾" Rib Metal Lath or Metal Lath of Equal Rigidity	3.4	24
	4.0	24
Sheet Lath	4.5	24

TABLE V

—METAL LATH for STRENGTH

(B)—(a) Studs for Hollow Partitions shall be a single row of shop-fabricated or pre-assembled studs; a single row of cold-rolled channels or other structural shapes with width equal to that of the finished partition (*less the thickness of lath and plaster on each side*); or shall be a double row of parallel studs made up of channels, each not less than a $\frac{3}{4}$ -inch cold-rolled channel, or its equivalent, with suitable spacers or braces.

(b) Maximum spacing of supports along the face of the partition shall be in accordance with type and weight of lath as in (A) preceding.

(c) Minimum size of metal studs for Metal Stud Hollow Partitions shall be in accordance with Table VI at bottom of this page.

(d) Where double channels are used to form partitions, spacers or braces shall be provided between every pair. They shall be of substantial design and be spaced not more than 4' apart, vertically, and shall reduce to 2' spacing for heights exceeding 20'. (*No spacers required for shop fabricated studs or extra-wide channel studs*).

(e) A $\frac{3}{4}$ -inch horizontal stiffener channel with web horizontal shall be placed every 4' to 6' horizontally for all partitions more than 10' long, and also for those more than 9' high. Stiffeners shall be permanently wired on inside of partition. For unsupported heights of 20' or more, horizontal stiffeners shall be $1\frac{1}{2}$ " channels.

(C)—(a), (b) and (c), same as Specification No. 1, Article C.

(d) A stud, continuous from floor to ceiling, shall in every case be placed adjacent to and at side of vertical door bucks (*two prefabricated or four channel studs required per opening*) and shall be so placed that space is provided between them and bucks for tying ends of Metal Lath sheets to such studs.

NOTE: Consult specifications of manufacturers of pre-fabricated studs for recommendations as to requirements at openings.

**TABLE VI—HEIGHTS OF METAL LATH AND
METAL STUD HOLLOW (Non-Bearing)
PARTITIONS**

TYPE OF PARTITION	Face-to-Face (A) Plaster Thickness (In Inches)	Maximum Height (B) (In Feet)
Single Row of $\frac{3}{4}$ " Studs	4 $\frac{3}{4}$	26
Single Row of 4" Studs	5 $\frac{1}{2}$	32
Single Row of 6" Studs	7 $\frac{1}{2}$	36
Double Row of $\frac{3}{4}$ " Channels	3	18
Double Row of $\frac{3}{4}$ " Channels	4	24
Double Row of $\frac{3}{4}$ " Channels	5	30

(A) Plaster $\frac{3}{4}$ " thick from stud face; for $\frac{5}{8}$ " plaster these figures reduce $\frac{1}{4}$ "; for $\frac{3}{8}$ " Rib Metal Lath, with ribs against studs, thickness increases $\frac{1}{2}$ ".

(B) For lengths not exceeding $1\frac{1}{2}$ times height. For lengths exceeding this, reduce height 20%.

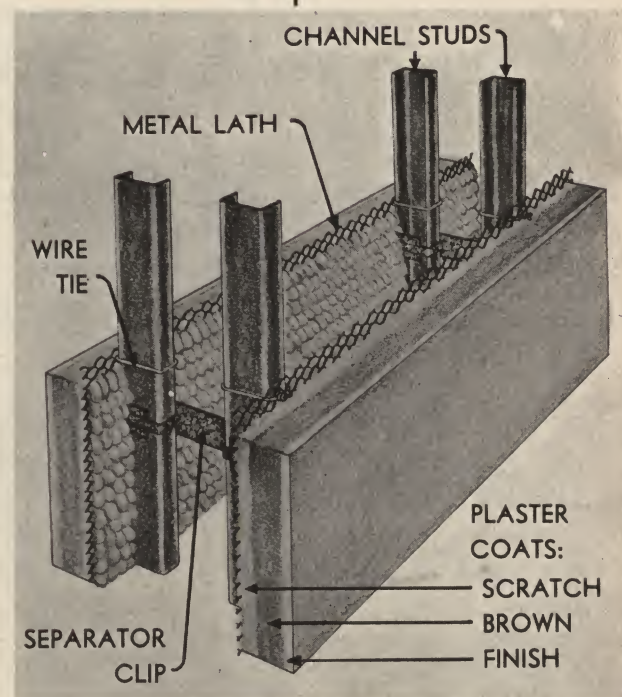
Specification

No. 2

(Cont.)

(B) Size and Spacing of Studs

(C) Assembly of Partition Studs



Metal Lath and Plaster Channel Stud Hollow Partition, Showing Stud Assembly of Double Channels With Clips. Prefabricated Steel Studs Are Widely Used for This Purpose.

Specification

No. 2

(Cont.)

(D) Erection

(E) Tie Wire

**(F) Metal Base Screed,
Picture Mold, Etc.**

(G) Bucks

(H) Wood Grounds

**(I) Electrical Conduit,
Switch Boxes, Etc.**

Specification

No. 3

**(A) Weights of
Metal Lath**

**(B) Size, Spacing
and Bracing
of Studs**

Where metal or metal and wood bucks are used, and excepting where such bucks dispense with need of studs directly against bucks, such studs shall be wire-tied to said bucks in a secure manner. Where wood bucks are used, two 8d nails shall be driven in pairs at intervals of 2', beginning 9" above floor, into the wood buck, and clinched over the studs to hold them securely.

(e) All studding shall be spaced the proper distance along the face of the partitions, as called for in Article A preceding. Where double channels are used, spacers between opposite pairs of channels shall be well secured to maintain alignment.

(f) A horizontal reinforcement consisting of a ¾" cold rolled channel shall be run across the top of each door opening and extend continuously past the double studs and just beyond the first single studs at each side. This reinforcement shall be saddle tied on the inside of the partition to each full stud it crosses and to jack studs over openings. Such channel shall be located 6" to 8" above the top of the door.

(D) (a) Metal Lath shall be applied to each side of the partition with the long dimension of sheet across the studs; Rib Metal Lath with the rib against the studs.

(b) Sheets shall be secured by wire ties at intervals not exceeding 6", and a tie shall be placed where sides of sheets lap at supports.

(c), (d), (e) and (f) Same as Specification No. 1, Article D.

(E) Same as Specification No. 1, Article E.

(F) Same as Specification No. 1, Article F.

(G) (a) Same as Specification No. 1, Article G.

(b) Wood door bucks shall be full dimension and made from straight-grained lumber substantially free from knots. Bucks shall be of out-to-out dimensions which will permit trim to cover joint between buck and plaster at least 1".

(c) and (d) Same as Specification No. 1, Article G.

(H) (a) Wood strip grounds, when used, shall correspond to required plaster thickness (less lath thickness), and shall be of 2" nominal width.

(b) Grounds shall be applied over Metal Lath and be well secured at studs by nailing to wood blocks secured to such studs, and be set true-to-line and shimmed out where necessary. Such nailing blocks shall be spaced at not to exceed 24" centers.

(c) Other types of wood grounds for plaster thickness and for attachment of trim shall also be provided.

(I) Devices, outlets, etc., used for other types of partitions finishing 4½" and more in face-to-face thickness may be used in Metal Lath Hollow Partitions.

Metal Lath and Plaster Sound- Insulating Double Partitions

(A) Same as Specification No. 2, Article A.

(B) (a) Studs for Metal Lath Double Partitions shall be a double row of parallel studs made up of channels each not less than ¾-inch standard cold-rolled channels or a double row of prefabricated studs.

Maximum spacing of channels or studs along the face of the partition shall be in accordance with type and weight of lath as in (A) above.

No spacers or cross ties which will in any way permanently connect the channels or studs on opposite sides of the partition are permissible.

A $\frac{3}{4}$ " cold rolled channel, or other member of at least equal rigidity shall be placed horizontally on the inside of the partition and be securely wired to each of the channels or studs forming one face of the partition, and a similar channel or reinforcement shall be used to align and stiffen the channels or studs on the other side. Such horizontal channels shall remain permanently in the partition and shall be so located that no part of them touches either the channels, the lath or the plaster keys of the other half of the partition. One such brace shall be applied every 4' in height of the partition, and at least two shall be provided for partitions $9\frac{1}{2}$ ' high, or over. For school room partitions and elsewhere where required on account of nature of occupancy, three or more braces shall be provided.

In addition to the horizontal bracing specified in the preceding the following shall be provided for all partitions of this type more than $9\frac{1}{2}$ ' high when more than 10' long:

At 10' intervals an additional channel stud or other vertical stiffener shall be supplied on the inside of the partition directly opposite the regular stud. It shall be installed so that the horizontal stiffener comes between it and the regular stud and at each of these points the two studs and horizontal stiffener shall be tied together. This is to be done independently on each half or face of the partition but no part of the construction shall run across or be tied to the other portion of the partition, the additional studs to be staggered for opposite faces of the partition.

(C) (a) Studs shall be erected by inserting ends into floor and ceiling runners.

Floor runners shall be laid over $\frac{3}{4}$ " thick machinery cork or other material having approximately equal resilient and load-carrying properties. (NOTE: Wood floor runners of $1\frac{1}{2}$ " thickness have sound-insulating value approaching but not equal to cork.)

Such cork, etc., shall be as wide as the finished thickness of the partition and shall be well secured to the floor slab. Rawl drives or other expansion bolts at 36" centers, or masonry nails which shall penetrate slab at least $\frac{5}{8}$ " and be spaced not to exceed 12" on centers, or combinations of the two, shall be used.

Attachments used for securing cork insulation to slab may be used simultaneously for securing and positioning floor runner, or separate attachments of the same type may be used for this purpose.

(b) For additional sound insulation, ceiling runner may be insulated from ceiling slab in manner similar to that described for floor runner in (a), preceding. Otherwise, upper ends of studs may be secured by any of the methods described in Specification No. 1, Article C, Paragraph (a).

(c) and (d) Same as Specification No. 1, Article C.

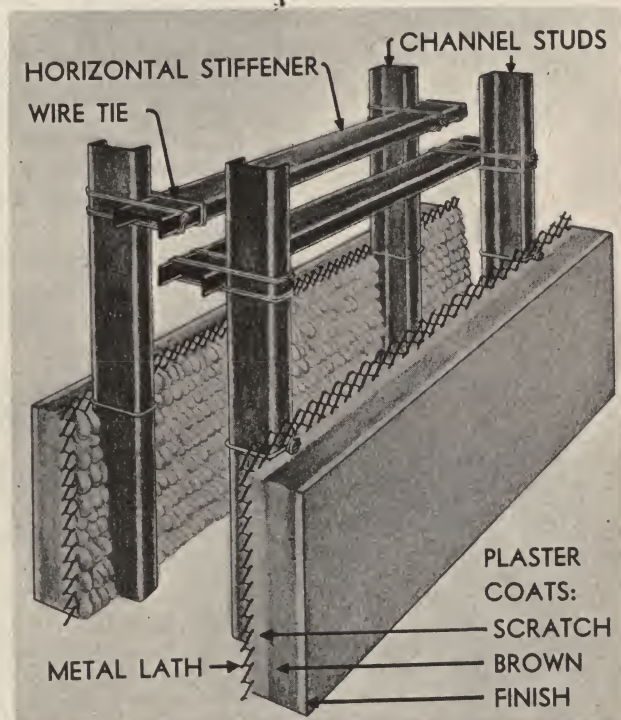
(e) A horizontal reinforcement consisting of a $\frac{3}{4}$ " cold rolled channel shall be run across top of each door opening and extend continuously past the double studs and just beyond the first single studs at each side. This reinforcement shall be saddle tied on the inside of the partition to each full stud it crosses and to jack studs over openings. Such channel shall be located 6" to 8" above the top of the door.

Specification

No. 3

(Cont.)

(C) Assembly of Partition Studs



Metal Lath and Plaster Channel Stud Double Partition, Showing Complete Separation of Two Faces of Partition. Prefabricated Steel Studs, Staggered, May Also Be Used.

Specification

No. 3

(Cont.)

(D) Erection of
Metal Lath

(E) Tie Wire

(F) Metal Base Screed,
Picture Mold, Etc.

(G) Bucks

(H) Plastering

(f) In erecting studding no part of same shall be wired or otherwise attached or permitted to make contact with piping, conduit, heat ducts, etc., within the partition.

(g) Lather shall see that each side of the partition is temporarily braced at intervals not exceeding 5' vertically until scratch coat of plaster has set.

(D) (a) Same as Specification No. 2, Article D.

(b) Sheets shall be secured by wire ties at intervals not exceeding 6", and a tie shall be placed where sides of sheets lap at supports.

(c), (d), (e) and (f) Same as Specification No. 1, Article D.

(g) In tying Metal Lath, no wire tires will be permitted from lath to piping, conduit, etc., within the partition or to any part of the lath and channels, on the opposite side of the partition.

(E) Same as Specification No. 1, Article E.

(F) Same as Specification No. 1, Article F.

(G) (a) Metal Door Bucks shall be erected in accordance with manufacturers' specifications. Where maximum sound insulation is desired, provide felt or cork-pad between buck and floor. Bucks shall be well anchored and secured by Rawl drives, through pads (where used), and penetrate at least 1" into floor and ceiling slabs.

(b) Wood door bucks shall be full dimension and made from straight-grained lumber substantially free from knots. Bucks shall be of out-to-out dimensions which will permit trim to cover joint between buck and plaster at least 1".

(c) and (d) Same as Specification No. 1, Article G.

(e) For maximum sound insulation a split or double-buck shall be used around entire opening with cork or other insulation between it and floor and between halves of bucks if connection is necessary. Provide sound-deadened casing around openings and "sound-proof" doors in openings.

(H) (a) Plaster shall be gypsum, lime, Keene's cement, or Portland cement or combinations of them.

NOTE: Acoustic plasters or finishes may be used in addition to scratch and brown coats of the plasters named. This will aid in controlling acoustics within room of origin.

(b) Plastering shall always begin at bottom of partition when height exceeds 9' in order to insure a straight and true wall. For lesser heights plastering, whenever possible, shall begin at bottom.

(c) Temporary bracing shall not be removed until scratch coats of plaster have set.

(d) Plastering shall extend down to floor line and be carefully filled between and back of all grounds, and in every case extend, uninterrupted, to under-side of ceiling slab.

Specification

No. 4

(A) Weights of
Metal Lath

(B) Floor and
Ceiling Runners

(C) Erection of
Runners

(D) Erection of
Metal Lath

**Studless Metal Lath and
Plaster Solid Partitions**

(A) All lath shall be Diamond Mesh Metal Lath weighing not less than 3.4 lbs. per square yard; $\frac{3}{8}$ " Rib Lath weighing not less than 3.4 lbs. per square yard; or Rod-Ribbed Metal Lath of equal rigidity and weight.

(B) Floor and ceiling runners shall be Angle runners 1" x 3" manufactured from 24 gage sheets; or $\frac{1}{2}$ " 18 gage expanded metal, formed into 1" x 3" Angles. If Metal Base is used, it shall be suitably attached to the partition.

(C) Runners shall be attached to floors and ceilings with concrete stub nails, Rawl drives, or other equivalent means, according to partition layout.

(D) (a) Metal Lath shall be erected with the long dimension of the sheet vertical and shall be one continuous sheet from floor to ceiling.

—METAL LATH for STRENGTH

(b) Sheets shall be secured first at ceiling runners and drawn tight and attached to floor runners. Wire ties shall be of double strands and shall be spaced at intervals not exceeding 6", and a tie shall be placed where sides of sheets lap at runners. Sides of sheets shall be tied at intervals not exceeding 6".

(c) Diamond Mesh Metal Lath shall be lapped at sides not less than ½".

(d) Rib Metal Lath shall be lapped at sides by nesting outside ribs or selvage.

(e) All Metal Lath shall be started away from corner and be bent into the corner and carried on to the abutting wall to avoid a joint at juncture of walls, provided that where ⅝" Rib or Rod-Ribbed Metal Lath is used it shall be butted into all corners, and Cornerite shall be applied over the abutting Lath in such angles and shall be wired at 6" intervals along each edge in all corners. Cornerite shall not be fastened at its corner, but only along each edge. (Cornerite is not required for Diamond Mesh Metal Lath).

(f) All partitions shall be temporarily braced with suitable bracing. Two horizontal braces shall be used and shall extend the full length of the partition and be securely anchored at both ends. One vertical brace shall be used and it shall be wedged securely to floors and ceilings and fastened to the horizontal braces. Other suitable bracing may be used.

(E) Tie wire for attaching Metal Lath to runners and for tying side laps of sheets shall not be less than No. 18 gage galvanized annealed wire, spaced not to exceed 6" on centers.

(F) Same as Specification No. 1, Article F.

(G) (a), (b), (c) and (d) Same as Specification No. 1, Article G.

(H) Wood grounds shall be set true to line and shall consist of wood strips of proper thickness and 2" nominal width placed on each side of the partition and wired or nailed to each other.

(I) Same as Specification No. 1, Article I.

(J) (a) Plastering shall be gypsum, lime, Keene's cement, or Portland cement, or combinations of them.

(b) The procedure for plastering shall be as follows: First apply a heavy scratch coat of plaster on the side opposite the bracing; after scratch coat has set, remove temporary bracing and apply plaster to the side on which the bracing had been erected.

(c) Plastering shall always begin at bottom of partition whenever possible.

(d) Plaster to be scratched to form a rough surface, succeeding coats to be brought to a total thickness of 2".

Specification

No. 4

(Cont.)

(E) Tie Wire

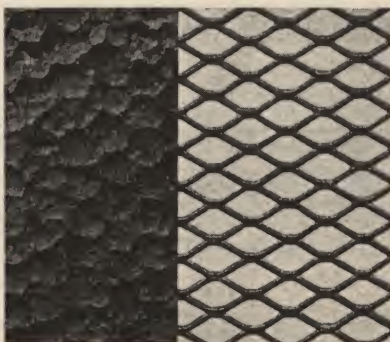
(F) Metal Base Screed,
Picture Mold,
Integral Metal Trim

(G) Bucks

(H) Wood Grounds

(I) Electric Conduit,
Switch Boxes, Etc.

(J) Plastering



AT LEFT

1000 plaster keys per square foot form a continuous positive mechanical bond and offer unequalled resistance to dislodgement due to expansion.

AT RIGHT

Method of Supporting Air Ducts in Metal Lath Wall. Details are also adapted for Metal Studs.



Specification
No. 5

(A) *Weights of
Metal Lath*

(B) *Size and
Spacing
of Studs*

Metal Lath Vertical Furring

(A)—All Metal Lath shall be specified by weight per square yard in accordance with the spacing of supports as given in Table V (on page 10). Weights given are exclusive of paper, fibre, or other backing.

(B)—Size of channel studs shall be determined according to the height of the vertical furring as set forth in Tables VII-(A) and VII-(B) (on this page). The spacing of channel studs shall be determined according to the type and weight of Metal Lath used as set forth in Table V (on page 10).

Prefabricated studs may be used in lieu of channel studs.

HEIGHTS OF METAL LATH AND CHANNEL STUD VERTICAL FURRING

TABLES VII-A
and
VII-B

VII (A) Free-Standing Furring	
RECOMMENDED MAXIMUM UNSUPPORTED HEIGHT, "A"	
Channel Size	Height
¾"	10'-6"
1½"	14'-0"

Horizontal Stiffeners, spaced same as Bracing in Table VII (B), are recommended for all Free-Standing Furring. For furring more than 16" o. c., use one-half these spacings, with minimum of 3'-6".

When overall height of furring exceeds Height A in table above, install Horizontal Bracing as given in table below:

VII (B) Braced Furring	
RECOMMENDED MAXIMUM DISTANCE, "B," BETWEEN HORIZONTAL BRACING	
Channel Size	Height
¾"	8'-0"
1½"	10'-0"

Diagram illustrating the Free-Standing Furring configuration. A vertical channel furring is shown between a ceiling and a floor. A horizontal stiffener is attached to the wall, not to the furring. The height is labeled "A". Labels include: CEILING, CHANNEL FURRING, HORIZONTAL STIFFENER NOT ATTACHED TO WALL (SEE NOTE 1), FLOOR, and WALL OR PARTITION.

Diagram illustrating the Braced Furring configuration. A vertical channel furring is shown between a ceiling and a floor. Horizontal bracing is attached to the wall. The height is labeled "B". Labels include: CEILING, CHANNEL FURRING, HORIZONTAL BRACING (ATTACHED TO WALL), FLOOR, and WALL OR PARTITION.

(C) *Assembly
of Channel
Studs*

(C)—(a) *Attachments* for braced furring shall consist of nails driven securely into concrete or into masonry joints, or short pieces of 3/4" cold rolled channels used as anchors driven into masonry joints. They shall be spaced not to exceed 2' on center, horizontally, and in accordance with the spacing of horizontal channels, vertically, and shall project a proper distance from the face of the wall to permit ties to be made.

Special devices which are the equivalent of the nail or channel attachments may be used in lieu thereof.

(b) *Horizontal Members* shall be not less than $\frac{3}{4}$ " cold rolled channels. They shall be spaced not to exceed 4'6" on centers with the lower and upper channels not more than 6" from the floor and ceiling respectively, and not less than $\frac{1}{4}$ " from the face of the wall. They shall be securely tied to attachments with 3 strands of No. 18 gage galvanized annealed wire, or equivalent devices.

Special devices, securely attached to concrete or masonry, in lieu of horizontal members, may be used for support of vertical members.

(c) *Vertical Members* shall be saddle-tied to horizontal members with 3 loops of No. 18 gage galvanized annealed wire, or equivalent devices, at each crossing, and securely anchored to the floor and ceiling construction.—(Note: For method of anchoring, see Specification No. 1, Article C (a).)

Where two-piece studs are used they shall be spliced within 2' of ceiling by lapping not less than 8" with the flanges interlocked and securely wired in two places not less than 6" nor more than 12" apart. Where single-piece studs are used, they shall be of a length as to permit anchorage at top and bottom without material bowing when fully erected.

Where furring is a considerable distance from the face of the wall, channel braces to the wall shall be provided approximately 2' on center, and, where the height exceeds 16', special truss bracing shall be provided to prevent concentration of load on the floor construction.

(D) *Erection of Metal Lath*—(a) Same as Specification No. 1, Article D.

(b) Sheets shall be secured to the channel studs by wire ties at intervals not exceeding 6", and a tie shall be placed where sides of sheets lap at supports.—Equivalent clips or other attachment devices may be used instead of wire ties.

(c), (d), (e) and (f) Same as Specification No. 1, Article D.

(E) *Tie Wire*—Same as Specification No. 1, Article E.

(F) *Metal Base Screed, Picture Mold, Etc.*—Same as Specification No. 1, Article F.

(G) *Wood Grounds*—Same as Specification No. 2, Article H.

(H) *Plastering*—(a) Plastering shall be gypsum, lime, Keene's cement, Portland cement, or combinations of them.

(b) Plastering shall always begin at the bottom of the furred wall when height exceeds 9' to insure a straight and true wall. For lesser heights, plastering, whenever possible, shall begin at the bottom.

(c) Plastering shall extend down to floor line and be filled solid between all grounds.

Specification

No. 5

(Cont.)



Furring and lathing of window jambs and walls and offset to cover piping.

Specification
No. 6

(A) Weights of
Metal Lath

(B) Erection of
Metal Lath

Metal Lath Attached to Vertical Wood Supports

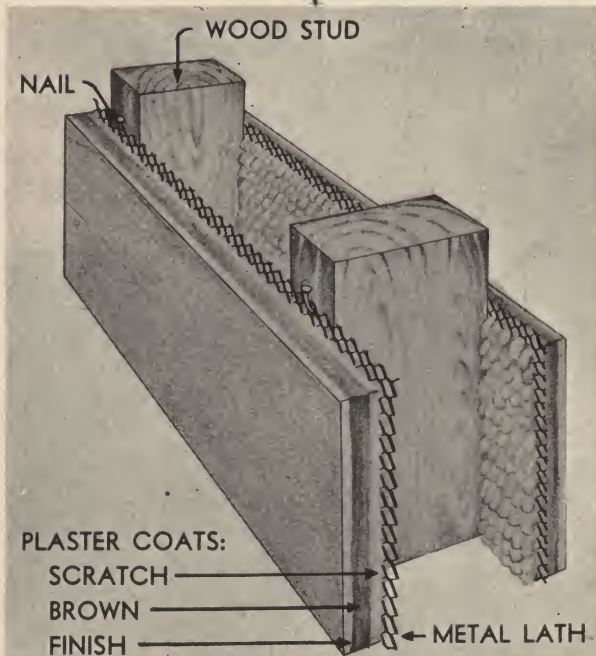
(A) All Metal Lath shall be specified by weight per square yard in accordance with the spacing of supports as given in *Table I* (on page 6). Weights are given exclusive of paper, fibre or other backing.

(B) (a) Metal Lath shall be applied with the long dimension of the sheet across the supports; Rib Metal Lath with the ribs against the supports.

(b) Diamond Mesh Metal Lath or Flat Rib Metal Lath shall be attached to vertical wood supports with not less than 4d common nails, or 1" roofing nails with 7/16" diameter heads, driven to a penetration of at least 3/4", or 1" No. 14 gage wire staples driven home but without crushing the lath strands. Common nails, when used, shall be bent over to engage at least three strands of Diamond Mesh Metal Lath, or shall be bent over the ribs of Flat Rib Metal Lath. Roofing nails shall be so driven as to engage at least two strands of Diamond Mesh Metal Lath, or shall be driven through the ribs of Flat Rib Metal Lath. Staples shall be so driven as to engage at least two strands of Diamond Mesh Metal Lath, or shall be driven over the ribs of Flat Rib Metal Lath.

3/8" Rib Metal Lath, and Sheet Lath, shall be attached to vertical wood supports with nails or staples 3/8" longer than respectively required for other bases as above, unless attachment is through rib, in which event nails or staples shall be of such length as to provide at least 3/4" penetration in the vertical wood supports.

Nails and staples shall be spaced not to exceed 6" on centers.



Metal Lath and Plaster Wood Stud Hollow Partition, Showing Lath Nailed Direct to Studs. Studs Are Usually 2x4-Inch or 2x6-Inch Nominal Size.

A tie, nail, or other attachment shall always be placed where sides of sheets lap at supports.

Other methods of attachment which afford equal carrying capacity may be used.

(c) Diamond Mesh Metal Lath shall be lapped at sides not less than 1/2", and at ends not less than 1". End laps of sheets should generally occur only over supports; if between, ends of sheets shall be securely laced together with No. 18 gage galvanized annealed wire.

(d) Rib Metal Lath and Sheet Lath shall be lapped at sides by nesting outside ribs or selvage. Rib Metal Lath shall lap 1" at ends and Sheet Lath by lapping one series of loops and nesting tops and bottoms of lapping sheets.

(e) Diamond Mesh Metal Lath shall be first applied to the ceilings, and the sheets carried down 6" on to the walls and partitions. If Metal Lath is not used on the ceilings, the lathing may start at the top of the wall and be bent and carried up 6" on to the ceiling joists so that no joints occur at juncture of ceiling and walls. On walls, Diamond Mesh Metal Lath shall be started one stud away from corner and be bent into the corner and carried on to the abutting wall, so as to avoid a joint at juncture of

walls, provided that where Rib Metal Lath or Sheet Lath is used on ceilings or walls, it shall be butted into all corners and Cornerite shall be applied over the butting lath in such angles and shall be wired at 6" intervals along each edge in all corners. Cornerite shall not be fastened at its corner, but only along each edge. (Cornerite is not required for Diamond Mesh Metal Lath.)

(f) Metal Lath shall be placed so that the lower sheet laps over the upper (not vice versa).

Metal Lath Nailed to Horizontal Wood Supports *(Contact Ceiling)*

(A) All Metal Lath shall be specified by weight per square yard in accordance with the spacing of supports as given in *Table I* (on page 6). Weights are given exclusive of paper, fibre, or other backing.

(B) (a) Metal Lath shall be applied with the long dimension of the sheet across supports; Rib Metal Lath with the ribs against supports.

(b) Diamond Mesh Metal Lath and Flat Rib Metal Lath shall be attached to horizontal wood supports with 1½", No. 11 gage, barbed roofing nails with 7/16" heads.

¾" Rib Metal Lath, and Sheet Lath, shall be attached to horizontal wood supports with nails or staples ¾" longer than respectively required for other bases as above, unless attachment is through rib, in which event nails or staples shall be of such length as to provide at least 1" penetration in the horizontal wood supports.

Nails and staples shall be spaced not to exceed 6" on centers.

A tie, nail, or other attachment shall always be placed where sides of sheets lap at supports.

Other methods of attachment which afford equal carrying capacity may be used.

(c) Diamond Mesh Metal Lath shall be lapped at sides not less than ½", and at ends not less than 1". End laps of sheets should generally occur only over supports; if between, ends of sheets shall be securely laced together with No. 18 gage galvanized annealed wire.

(d) Rib Metal Lath and Sheet Lath shall be lapped at sides by nesting outside ribs or selvage. Rib Metal Lath shall lap 1" at ends and Sheet Lath by lapping one series of loops and nesting tops and bottoms of lapping sheets.

(e) Diamond Mesh Metal Lath shall be first applied to the ceilings and the sheets carried down 6" on to the walls and partitions, if walls and partitions are to be plastered, so that no joints occur at juncture of ceiling and walls. Where Rib Metal Lath or Sheet Lath is used on ceilings, and walls and partitions are to be plastered, it shall be butted into all corners and Cornerite shall be applied over the butting lath in such angles and shall be wired at 6" intervals along each edge. Cornerite shall not be fastened at its corner, but only along each edge. (Cornerite is not required for Diamond Mesh Metal Lath.)

Specification

No. 6

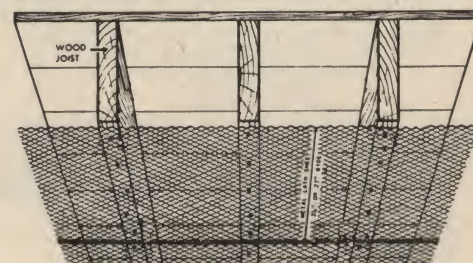
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Specification

No. 7

(A) *Weights of Metal Lath*

(B) *Erection of Metal Lath*

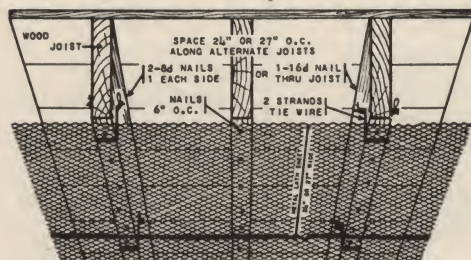


Specification

No. 8

Metal Lath Tied-and-Nailed to Horizontal Wood Supports

(Contact Ceiling)



This construction should be used where the required holding power of nails is not obtainable, and in structures subject to greater-than-ordinary vibration, such as: (1) School classrooms, gymnasiums, auditoriums, and other places of public assembly; (2) Buildings located in areas subject to severe earthquakes, or near oil well drilling or quarrying operations, etc.

(A) Weights of Metal Lath

(A) Same as Specification No. 7, Article A.

(B) (a) Same as Specification No. 7, Article B.

(b) Same as Specification No. 7, Article B, with following supplemental provisions for tying: 16d common nails shall be driven in a horizontal position clear through joists at least 2" above the bottom edge of joists. Nails shall be spaced 24" or 27" on centers along the sides of alternate joists, the spacing depending on the width of Metal Lath sheet used, and shall be so placed that when the sheets of Metal Lath are in position the nails will be not more than 3" back from the edge of each sheet. In place of 16d common nails driven clear through joists, two 8d common nails may be used, one on each side of joist, driven diagonally downward to a penetration of at least 1½" from a point not less than 2" above the bottom edge of joists.

Metal Lath shall then be secured to each nail with not less than 2 strands of No. 18 gage galvanized annealed tie wire bent U-shaped, pushed up through the lath and the free ends given not less than three twists around the projecting point and head of the nail (or around the projecting head of each 8d nail). This tying shall preferably be done progressively as the sheets of Metal Lath are nailed on.

(c), (d), and (e) Same as Specification No. 7, Article B.

Specification

No. 9

Metal Lath Attached to Steel Joists

(Contact Ceiling)

(A) Weights of Metal Lath

(A) Same as Specification No. 7, Article A.

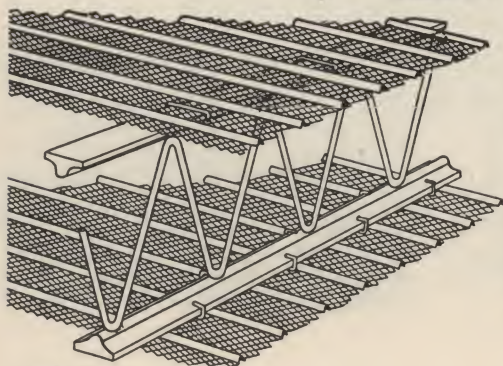
(B) (a) Same as Specification No. 7, Article B.

(b) Metal Lath shall be securely attached to the underside of steel joists by 4 strands of No. 16 gage galvanized annealed wire, so attached that there will be 2 double strands of wire supporting the Metal Lath. Wire shall be twisted beneath the Metal Lath as for tie wire. Attachments shall be spaced at not to exceed 6" intervals. Other approved attachments may be used if of equivalent strength. Ties shall be placed where sides of sheets lap at supports.

(c) Rib Metal Lath and Sheet Lath shall be lapped at sides by nesting outside ribs or selvage. Rib Metal Lath shall lap 1" at ends and Sheet Lath by lapping one series of loops and nesting tops and bottoms of lapping sheets.

(d) Where Rib Metal Lath or Sheet Lath is used on ceilings, and walls and partitions are to be plastered, it shall be butted into all corners and Cornerite shall be applied over the butting lath in such angles and shall be wired at 6" intervals along each edge. Cornerite shall not be fastened at its corner, but only along each edge. (Cornerite is not required for Diamond Mesh Metal Lath.)

(B) Erection of Metal Lath



Metal Lath Attached to Concrete Joists

(Contact Ceiling)

Specification No. 10

(A) (a) Same as Specification No. 7, Article A.

(A) *Weights of
Metal Lath*

(B) Hangers for attaching Metal Lath directly to the underside of concrete joists in 20" or 30" wide form construction shall consist of hairpin, hook or loop hangers or other inserts. Hangers shall be provided with a loop or other deformation to positively enter the concrete, or be secured to the reinforcing steel.

(B) *Size, Spacing
and Attachment
of Hangers*

Hangers shall be of not less than No. 14 gage galvanized annealed wire when twisted as for tie wire, and not less than No. 10 gage galvanized wire when struck over to support the Lath, with or without being twisted.

Hangers shall be spaced at not to exceed 5" intervals along bottom of joists. For 30" wide form construction, there shall also be placed a No. 12 gage galvanized wire hanger through the center of the top surface of the forms at 36" centers. There shall be a loop in each hanger to engage the concrete.

Other approved attachments or inserts may be used if of equivalent strength.

(C) *Erection of
Channels*

(C) In 30" wide form construction, cold rolled $\frac{3}{4}$ " channels weighing not less than 300 lbs. per 1000 lineal feet shall be erected running parallel to and between the rows of joists at approximately 36" centers.

(D) (a) Metal Lath shall be applied with the long dimension of the sheet across supports, Rib Metal Lath with the ribs against supports.

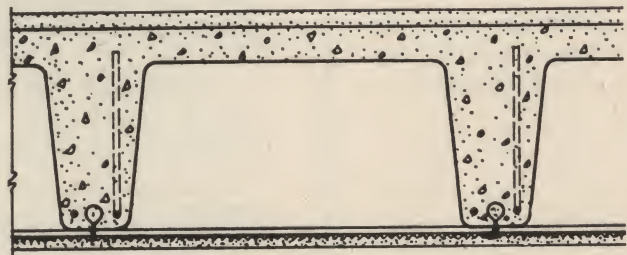
(D) *Erection of
Metal Lath*

(b) In 20" wide form construction, the Metal Lath shall be securely attached to the underside of the concrete joists by twisting the No. 14 gage wire hangers as for tie wire, or by clinching of other types of hangers.

In 30" wide form construction, the Metal Lath shall be attached to the concrete joists as in 20" wide form construction and shall also be tied to the channels with No. 18 gage galvanized annealed wire at not to exceed 6" intervals.

(c) Rib Metal Lath and Sheet Lath shall be lapped at sides by nesting outside ribs or selvage. Rib Metal Lath shall lap 1" at ends and Sheet Lath by lapping one series of loops and nesting tops and bottoms of Lath sheets.

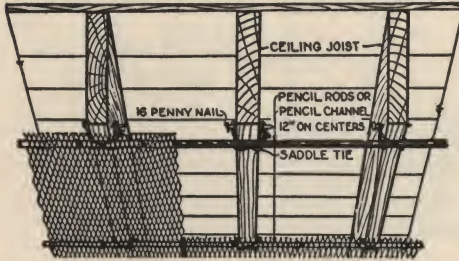
(d) Where Rib Metal Lath or Sheet Lath is used on ceilings, it shall be butted into all corners and Cornerite shall be applied on the butting lath at such angles and shall be wired at 6" intervals along each edge. Cornerite shall not be fastened at the corner, but only along edge.



Metal Lath Attached to Concrete Joists

Specification
No. 11

Metal Lath Furred Ceiling On Wood Joists



This construction is recommended where increased fire retardance is essential, or where the finest job of plastering is desired which will eliminate joist streaks or shadows. It is also especially recommended for structures subject to greater-than-ordinary vibration and where a very high factor of safety is desirable, such as in school buildings, auditoriums, or other places of public assembly.

(A) **Weights of
Metal Lath**

(A) Same as Specification No. 7, Article A.

(B) **Erection of
Furring**

(B) (a) Furring members may be $\frac{1}{4}$ " or $\frac{3}{8}$ " pencil rods or $\frac{3}{4}$ " cold rolled channels, spaced in accordance with the provisions of Table VIII (on page 23).

(b) 16d common nails shall be driven in a horizontal position clear through each joist at least 2" above the bottom edge of joist. Nails shall be spaced to conform to the spacing of furring members, and shall be so aligned that furring members will be at right angles to the joists.

(c) Channel or rod furring shall be attached flush against the bottom edges of joists by securely wire tying the furring to each nail with not less than 2 strands of No. 18 gage galvanized annealed tie wire saddle tied.

(C) (a) Metal Lath shall be applied with the long dimension of the sheet across supports; Rib Metal Lath with the ribs against supports.

(b) Metal Lath shall be attached to the steel furring members by No. 18 gage galvanized annealed wire ties spaced at not to exceed 6" intervals, or with other approved attachments of equivalent strength. Ties shall be placed where sides of sheets lap at supports.

(c) Diamond Mesh Metal Lath shall be lapped at sides not less than $\frac{1}{2}$ ", and at ends not less than 1". End laps of sheets should generally occur only over supports; if between, ends of sheets shall be securely laced together with No. 18 gage galvanized annealed wire.

(C) **Erection of
Metal Lath**

(d) Rib Metal Lath and Sheet Lath shall be lapped at sides by nesting outside ribs or selvage. Rib Metal Lath shall lap 1" at ends and Sheet Lath by lapping one series of loops and nesting tops and bottoms of lapping sheets.

(e) Diamond Mesh Metal Lath shall be first applied to the ceilings and the sheets carried down 6" on to the walls and partitions so that no joints occur at juncture of ceiling and walls. Where Rib Metal Lath or Sheet Lath is used on ceilings, and walls and partitions are to be plastered, it shall be butted into all corners and Cornerite shall be applied over the butting lath in such angles and shall be wired at 6" intervals along each edge. Cornerite shall not be fastened at its corner, but only along each edge, (Cornerite is not required for Diamond Mesh Metal Lath.)

Metal Lath Furred Ceiling On Steel Joists

Specification
No. 12

(A) **Weights of Metal Lath**—Same as Specification No. 7, Article A.

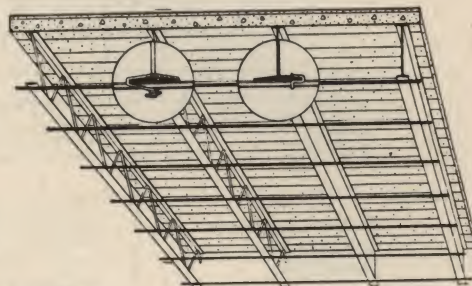
(B) **Erection of Furring**—(a) Furring members, of the size and spacing indicated in *Table VIII* (below) for the corresponding spacing of supports, shall be erected at right angles to the steel joists.

(b) Furring members shall be securely attached to the underside of steel joists with 4 strands No. 16 gage galvanized wire or with other approved attachments of equivalent strength.

(C) (a) Metal Lath shall be applied with the long dimension of the sheet across supports; Rib Metal Lath with the ribs against supports.

(b) Metal Lath shall be attached to the steel furring members by No. 18 gage galvanized annealed wire ties spaced at not to exceed 6" intervals, or with other approved attachments of equivalent strength. Ties shall be placed where sides of sheets lap at supports.

(c), (d) and (e) Same as Specification No. 11, Article C.



(C) *Erection of
Metal Lath*

**SIZE AND SPACING
OF CROSS FURRING
FOR FURRED AND
SUSPENDED
CEILINGS**

Center to Center Spacing of Supports	Cross Furring Size, Type and Weight	Maximum Spacing
Up to 2 feet	¼" Pencil Rods	12"
	⅜" Pencil Rods	19"
Up to 3 feet	¾" cold rolled channels	24"
Up to 4 feet	@ 300 Lbs. per 1000 feet	16"

TABLE VIII

Metal Lath Furred Ceiling On Concrete Joists

Specification
No. 13

(A) In 20" or 30" wide form construction, hangers for supporting furring channels or rods against the bottom of concrete joists, or suspending the ceiling a distance of not over 6" below the joists, shall consist of No. 10 gage galvanized wire.

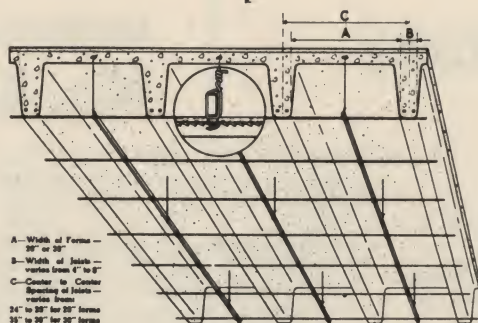
In 20" wide form construction, hangers shall be spaced at not to exceed 36" centers, and be placed through the center of the top surface of each row of forms. In 30" wide form construction, hangers shall be spaced at not to exceed 36" centers, and be placed at the center of the top surface in every other row of forms. In the alternate rows in 30" wide form construction, there shall also be placed 2 No. 10 gage galvanized wire hangers at not to exceed 36" on centers in the top surface of the forms approximately 2" from each side.

All hangers shall be provided with a loop or other deformation to positively enter the concrete, or be secured to the reinforcing steel.

All hangers shall be of ample length such that the lower end of hangers may be saddle tied or wrapped around the runners so as to develop the full strength of the hangers.

Other approved attachments or inserts may be used if of equivalent strength.

(A) *Size, Spacing
and Attachment
of Hangers*



Furred Ceiling on
Concrete Joist
Construction

(B) Cold rolled $\frac{3}{4}$ " channels, weighing not less than 300 lbs. per 1000 lineal feet, shall be erected running parallel to and between the rows of joists.

Cross furring shall run transversely to the joists and runners, and shall consist of $\frac{1}{4}$ " round steel pencil rods at 12" on center or $\frac{3}{8}$ " round steel pencil rods at not to exceed 16" on center.

The cross furring shall be securely saddle tied to the runner channels by not less than 2 strands of No. 16 gage galvanized wire at each crossing or by equivalent clips or attachments.

(C) (a) Metal Lath, of one of the types and weights listed in *Table I* (on page 6) for the corresponding spacing of furring, shall be attached to the furring members with the long dimension of the sheet across the furring, and shall be carried down 6" on to the walls and partitions.

(b) All types of Metal Lath shall be secured to the furring members by wire ties of No. 18 wire gage galvanized annealed tie wire spaced at intervals not exceeding 6" along such members.

(c) Diamond Mesh Metal Lath shall be lapped not less than $\frac{1}{2}$ " at sides; Flat Rib and $\frac{3}{8}$ " Rib Metal Lath shall be lapped at sides by nesting outside ribs or selvage. All Metal Lath shall lap 1" at ends.

(d) End laps of sheets should generally occur only over supports; if between, ends of sheets shall be securely laced together with No. 18 gage galvanized annealed tie wire.

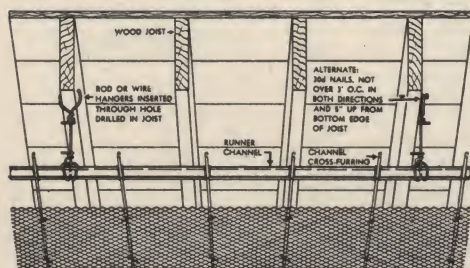
Specification No. 14

Metal Lath Ceiling Suspended from Wood Construction

(A) **Size and Spacings of Hangers**—Size and spacings of hangers for Metal Lath ceilings suspended from wood construction shall be as provided in *Table IX* (on page 25).

(B) (a) **Attachment and Protection of Hangers**—Hangers shall be inserted through holes drilled in the joists and the upper end of each hanger twisted 3 times around itself, or hangers may be attached to 30d nails driven into sides of joists at least 5" from bottom edges, and not over 36" on centers, and the upper end of each hanger twisted 3 times around itself.

All wire hangers shall be of ample length such that the lower ends of hangers may be saddle tied or wrapped around the runners so as to develop the full strength of the hangers. (b) All wire hangers shall be galvanized. •



(C) **Size and Spacing of Runners and Cross Furring**—Channel runners, of the size and spacing given in *Table X* (on page 26) for the corresponding longitudinal spacing of hangers, shall be erected running transversely below the joists, and shall be cross furred with pencil rods or channels, of the size and spacing indicated in *Table VIII* (on page 23) for the corresponding spacing of runner channels, erected at right angles to the runner channels.

(D) **Attachment of Cross Furring to Runners**—The cross-furring shall be securely saddle tied to the runner channels by not less than 2 strands of No. 16 gage galvanized annealed wire at each crossing, or by No. 9 gage wire hairpin clips or equivalent clips or attachments.

(E) (a) Metal Lath, of one of the types and weights listed in Table I (on page 6) for the corresponding spacing of furring, shall be attached to the furring members with the long dimension of the sheet across the furring, and shall be carried down 6" on to the walls and partitions.

(b) All types of Metal Lath shall be secured to the furring members by wire ties of No. 18 wire gage galvanized annealed tie wire spaced at intervals not exceeding 6" along such members.

(c) Diamond Mesh Metal Lath shall be lapped not less than ½" at sides; Flat Rib and ⅜" Rib Metal Lath shall be lapped at sides by nesting outside ribs or selvage. All Metal Lath shall lap 1" at ends.

(d) End laps of sheets should generally occur only over supports; if between, ends of sheets shall be securely laced together with No. 18 gage galvanized annealed tie wire.

SIZE AND SPACING OF HANGERS FOR SUSPENDED CEILINGS (1)

Maximum Ceiling Area Supported Per Hanger	Maximum Center to Center Spacing of Hangers (1)	Minimum Size of W&M Gage Galvanized Wire (2) (3)		Alternate Types and Sizes of Hangers (2) (3)	
Up to 16 sq. ft.	4 ft.	No. 8		3/16" or ¼" round mild steel rods or 1 x 3/16" flat mild steel bars	

(1) It is recommended that in regions experiencing great variations in temperature where roofs are not insulated to prevent condensation in the space above suspended ceilings, that the space be ventilated, so as to reduce condensation to a practical minimum.

It is also recommended that in regions subject to tornadoes that hangers be of a type to resist compression as well as tension.

In Concrete Joist Construction, ¼" round mild steel hangers may be placed 48" on center in alternate rows of concrete joists in 20" wide form construction.

(2) Attachment of runner channels to hangers shall be in one of the following manners:

Lower end of wire hangers shall be saddle tied to runner channels and end shall be given three twists around itself.

Lower end of rod hangers shall be of length to wrap around the runner channel with 2 twists, or be securely wired to same.

Lower ends of flat steel hangers shall have holes punched at the proper distance (but not closer than ⅜" from ends) to which the runner channels shall be tightly bolted with not less than ⅜" diameter round head bolts, provided that for ceilings over auditoriums, theatres and other public buildings and elsewhere where an added factor of safety is desirable, the lower end of flat steel hangers shall be long enough to bend up sharply as stirrups under runner channel to which they shall be bolted as already described, and shall continue up and be securely tied to main portion of hanger not less than 6" above runner channel.

(3) When hangers are hung from concrete beams or arches, the hangers shall be placed and shall be checked as to spacing and proper placing for anchorage, under the direction of the lathing foreman or his qualified representative on the job, before concrete is poured.

Metal Lath Ceiling Suspended From Concrete Joist Construction

(A) **Size of Hangers**—Size of hangers for Metal Lath ceilings suspended from concrete joist construction shall be as provided in Table IX (on this page).

(B) **Spacing and Attachment of Hangers**—(a) Hangers shall be inserted through the centering at the bottom of joists, and shall be provided with a loop or other deformation to positively enter the concrete, or be secured to the reinforcing steel.

Specification

No. 14

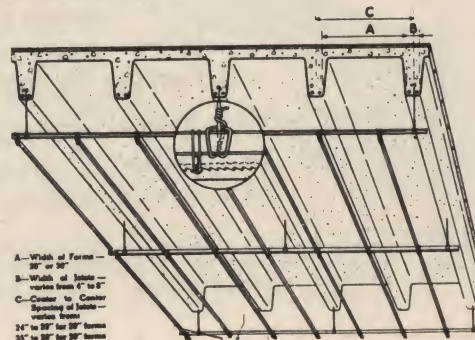
(Cont.)

(E) Types of Metal Lath and Attachment Furring

TABLE IX

Specification

No. 15



Specification No. 15

(Cont.)

In 20" wide form construction, hangers shall be spaced at 48" on centers in alternate rows of concrete joists. In 30" wide form construction, hangers shall be spaced in each row of joists.

Wire hangers shall be of ample length such that the lower end of hangers may be saddle tied or wrapped around main runners so as to develop the full strength of the hangers.

Other approved attachments or inserts may be used if of equivalent strength.

(b) All wire hangers shall be galvanized.

(C) **Size and Spacing of Runners and Cross Furring**—Same as Specification No. 14, Article C.

(D) **Attachment of Cross Furring to Runners**—Same as Specification No. 14, Article D.

(E) **Types of Metal Lath and Attachment to Furring**—(a), (b), (c) and (d) Same as Specification No. 14, Article E.

SIZE AND SPACING OF MAIN RUNNERS FOR SUSPENDED CEILINGS

Center to Center Spacing of Hangers	Size	Main Runners Weight per 1000 feet	Maximum Spacing
Up to 2 feet	3/4"	300 lb.	3 feet
Up to 3 feet (1)	3/4"	300 lb.	27"
Up to 4 feet	1 1/2"	475 lb.	4 feet

TABLE X

NOTE—Where hangers are spaced not to exceed 24" on centers along each runner or carrying channel, cross furring channels may be omitted and lath attached crosswise and directly to runner channels; provided, however, that spac-

ing center to center of such runner channels shall not exceed the limits specified in TABLE I (on page 6).

(1) This spacing for concrete joist construction only.

Specification No. 16

Metal Lath Ceiling Suspended From Terra Cotta and Similar Masonry

(A) **Size and Spacing of Hangers**—(a) Size and spacing of hangers for Metal Lath ceilings suspended from terra cotta and similar masonry floors shall be as provided in Table IX (on page 25).

(B) **Attachment and Protection of Hangers**—(a) For ceilings hung from terra cotta and similar masonry floors, hangers shall be installed after tile is in place. A hole shall be punched from bottom to top through the tile or in the masonry joint between tiles, and the hanger inserted through to the top of the arch and secured on the upper side with a 7" cross piece of channel, steel rod or flat bar anchor resting on top of the tile.

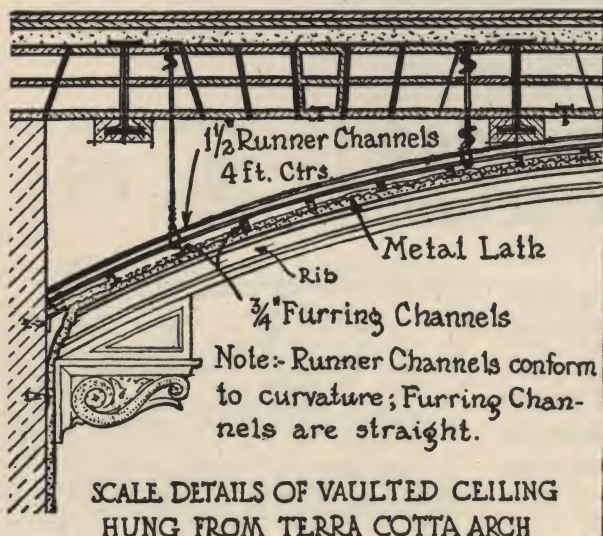
All wire hangers shall be of ample length such that the lower end of hangers may be saddle tied or wrapped around the runners so as to develop the full strength of the hangers.

(b) All wire hangers shall be galvanized.

(C) **Size and Spacing of Runners and Cross Furring**—Channel runners, of the size and spacing given in Table X for the corresponding longitudinal spacing of hangers, shall be erected, and shall be cross furred with pencil rods or channels, of the size and spacing indicated in Table VIII (on page 23) for the corresponding spacing of runner channels, erected at right angles to the runner channels.

(D) **Attachment of Cross Furring to Runners**—Same as Specification No. 14, Article D.

(E) **Types of Metal Lath and Attachment to Furring**—(a), (b), (c) and (d) Same as Specification No. 14, Article E.



Metal Lath Ceiling Suspended from Flat Slab Concrete Construction

Specification No. 17

(A) **Size and Spacing of Hangers**—(a) Size and spacing of hangers for Metal Lath ceilings suspended from flat slab concrete construction shall be as provided in *Table IX* (on page 25).

(b) Special inserts, at least equivalent in strength to the hangers, to which the hangers can later be attached, may be inserted through or attached to the top of the forms in lieu of anchoring the hangers directly in the concrete.

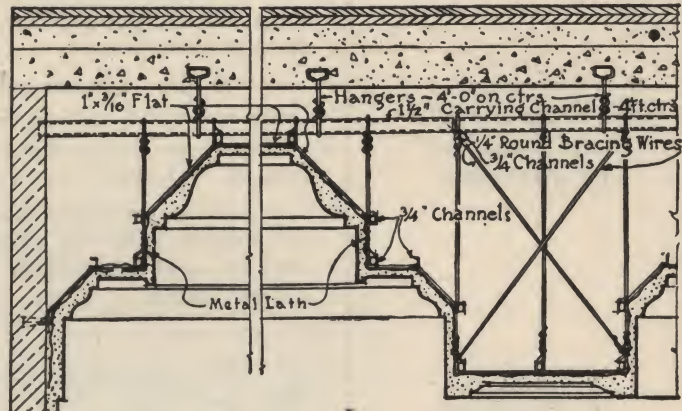
(B) **Attachment and Protection of Hangers**—(a) Hangers shall be secured to steel reinforcement in concrete with cinder aggregate and may be secured to steel reinforcement or looped or embedded in concrete with other types of aggregates. All wire hangers shall be of ample length such that the lower end of hangers may be saddle tied or wrapped around the runners so as to develop the full strength of the hangers.

(b) All wire hangers shall be galvanized.

(C) **Size and Spacing of Runners and Cross Furring**—Channel runners, of the size and spacing given in *Table X* (on page 26) for the corresponding longitudinal spacing of hangers, shall be erected, and shall be cross furred with pencil rods or channels, of the size and spacing indicated in *Table VIII* (on page 23) for the corresponding spacing of runner channels, erected at right angles to the runner channels.

(D) **Attachment of Cross Furring to Runners**—Same as Specification No. 14, Article D.

(E) **Types of Metal Lath and Attachment to Furring**—(a), (b), (c) and (d) Same as Specification No. 14, Article E.



Typical Cornice and
False Beam Suspended
From Concrete Slab.

Metal Lath Ceiling Suspended from Steel Construction

Specification No. 18

(A) **Size and Spacing of Hangers**—Size and spacing of hangers for Metal Lath ceilings suspended from steel construction shall be as provided in *Table IX* (on page 25).

(B) **Attachment and Protection of Hangers**—(a) For steel beams, joists or other steel construction, hangers shall be wrapped around, inserted through, or clipped or bolted to steel structural supports, so as to develop the full strength of the hangers. All wire hangers shall be of ample length such that the lower end of hangers may be saddle tied or wrapped around the runners so as to develop the full strength of the hangers.

(b) All wire hangers shall be galvanized.

(C) **Size and Spacing of Runners and Cross Furring**—Channel runners, of the size and spacing given in *Table X* (on page 26) for the corresponding longitudinal spacing of hangers, shall be erected, and shall be cross furred with pencil rods or channels, of the size and spacing indicated in *Table VIII* (on page 23) for the corresponding spacing of runner channels, erected at right angles to the runner channels.

(D) **Attachment of Cross Furring to Runners**—(a) Same as Specification No. 14, Article D.

(E) **Types of Metal Lath and Attachment to Furring**—(a), (b), (c) and (d) Same as Specification No. 14, Article E.

Specification No. 19

(A) Size, Weight and Spacing of Brackets

(B) Tie Wire

(C) Erection of Brackets, Channels and Rods

(D) Erection of Metal Lath

Plaster Beams and Cornices

(A) Brackets shall be formed of $\frac{3}{4}$ " cold rolled channels weighing not less than 300 lbs. per 1000 lineal feet, or from $\frac{3}{16}$ " by 1" flat steel, and shall be spaced as follows:

(a) Where $\frac{3}{4}$ " channels are used for longitudinal furring each member of the cornice or beam brackets shall be not more than 3'-0" apart.

(b) Where $\frac{1}{4}$ " pencil rods are used to fur each member, brackets shall not exceed 19" apart.

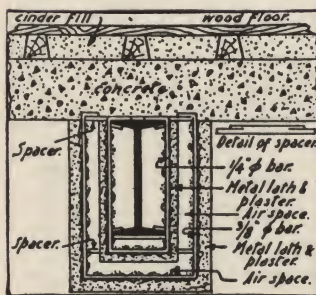
(c) Where furring is not intended to be used at each member, brackets shall not exceed $13\frac{1}{2}$ " on centers for 3.4 lb. Diamond Mesh Metal Lath, provided that at least one runner bar or channel shall be installed to hold work in proper shape.

(B) Wire for tying brackets to structural members shall be not less than No. 14 gage galvanized annealed wire using saddle tie, or use 6 strands of No. 18 wire; for tying longitudinal rods to brackets, wire shall be not less than No. 18 gage galvanized annealed wire, and for tying Metal Lath to rods or channels, wire shall be not less than No. 18 gage galvanized annealed wire.

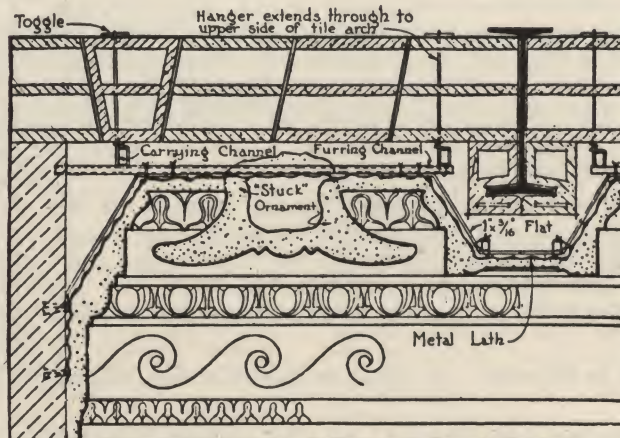
(C) (a) Brackets shall be formed to template to require a minimum of plaster (but in no case less than $\frac{3}{4}$ " thickness), in accordance with details furnished by the architect. Brackets shall be securely wired, bolted or clamped to walls, ceilings, or structural members, as the case may require, and be spaced as in Article (A) above. For fastening brackets to concrete or masonry beams or walls, holes shall be drilled and plugged, or other equally strong anchorage shall be provided; when fastening to terra cotta, toggle bolts or suitable anchor shall be used.

(b) Longitudinal channels or rods shall be wire tied or bolted to brackets.

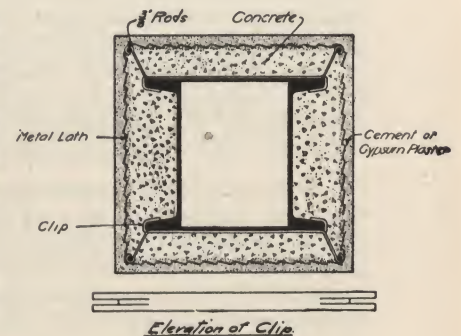
(D) Metal Lath shall be applied to the longitudinal channels or rods or direct to brackets and be bent into and made to conform with the outline of the finished beam or cornice. Side laps shall not occur at the corners, but Lath shall be carried around to the next member, or corner strips shall be used at all corners.



Fireproofing of Steel Beams
Under Concrete Floors.



Ornamental Cornice, Ceiling and Beams Furring
Suspended from Structural Clay Tile Arch.



Method of Fireproofing
Columns Using Concrete.

Metal Lath for Exterior Stucco Reinforcing Steel Frame Construction

**Specification
No. 20**

(A) Studding or furring of light steel channels, pressed steel members, steel reinforcing rods or metal studs, spaced as required by the particular system of wall construction used, shall be securely fastened to the structural frame by wire ties or clips, by bolting or by welding. Steel channels and pressed steel members shall be furnished to the job painted with one factory or shop coat of rust-inhibitive paint, or protected by a galvanized coating.

*(A) Studding
or Furring for
Metal Lath*

(B) Reinforcing shall be not less than 3.4 lb. Diamond Mesh Metal Lath, cut from galvanized sheets, for which supports shall be spaced not more than 16" on centers. Unless back-plastered construction is employed, Rib Metal Lath shall not be used. Lath shall be applied with the long dimension of the sheet across supports and shall be attached to the studs or furring by wire ties of No. 18 gage galvanized annealed tie wire, or by nailing or by equivalent attachments, spaced at intervals not exceeding 6" along such studs or furring members. Lath shall be lapped at sides not less than $\frac{1}{2}$ ", and at ends not less than 1". End laps of sheets should generally occur only over supports and shall be staggered; end laps of sheets between supports shall be securely laced together with No. 18 gage galvanized annealed tie wire. Sheets shall be returned around corners at least 4".

(B) Metal Lath

Metal Lath and Expanded Metal (Stucco Mesh) for Exterior Stucco Reinforcing Wood Frame Construction

**Specification
No. 21**

Metal Lath shall weigh not less than 3.4 lbs. per square yard. Expanded Metal Reinforcing (Stucco Mesh) shall weigh not less than 1.8 lbs. per square yard. Metal Lath or Expanded Metal (Stucco Mesh) shall be coated with a rust-inhibitive paint after fabrication, or Metal Lath made from galvanized sheets may be used.

Metal Lath or Expanded Metal (Stucco Mesh) shall be attached at intervals not to exceed 6" vertically, and 16" horizontally, and shall be furred out from the backing not less than $\frac{1}{4}$ ", or a self-furring Metal Lath may be used. Nails or other furring devices used for attachment shall be galvanized and shall have a penetration into vertical wood supports of at least $\frac{3}{4}$ ", and into horizontal wood supports of at least 1".

Metal Lath shall be lapped $\frac{1}{2}$ " at sides and 1" at ends. Expanded Metal (Stucco Mesh) shall be lapped one diamond at sides and ends. End laps of sheets should generally occur over supports and shall be staggered; end laps of sheets between supports shall be laced together with No. 18 gage galvanized annealed tie wire.

In back-plastered construction and in the application of stucco to the underside of horizontal surfaces, Diamond Mesh Metal Lath shall be used.

Corner, Joint and Other Reinforcement



Use of Metal Lath as "Cornerite" to minimize corner cracks wherever wood, gypsum, or fibre insulation lath are used.



The following constitute miscellaneous suggestions for the use of Metal Lath products in reinforcing plaster:

(1) Corner Reinforcement

(A) Cornerite

(A) All internal vertical and horizontal angles of any interior surfaces to be plastered (including wood lath, gypsum lath and fibre-board lath) shall be continuously reinforced with Metal Lath cornerite not less than 6" wide, 3" on each surface. Cornerite shall be attached at the outer edges.

(B) Corner Bead

(B) All external angles to be plastered shall be protected with galvanized corner beads.

(2) Joint Reinforcement

(A) Stripite

(A) Wherever plaster board, fibre-board and similar materials are used as plaster bases, a strip of flat expanded metal lath (stripite) shall be applied over joints between the sheets of such materials to reinforce the plaster.

(3) Other Reinforcement

(A) Abutting Plaster Bases and Metal Lath

(A) Wherever Metal Lath abuts masonry, concrete or other types of bases that are to be plastered, the Metal Lath shall be returned or extended 6" onto the abutting plaster base.

(B) Reinforcement of Openings

(B) At all corners of openings more than 2 square feet in area in any surface to be plastered strips of Metal Lath at least 12" wide and 24" long shall be attached over the plaster base at an angle of approximately 45 degrees. (Such additional reinforcing is not required over Metal Lath.)

(C) Reinforcement of Chases and Door Bucks

(C) All chases or similar openings in horizontal or vertical masonry surfaces to be plastered shall be covered with Metal Lath. Where door bucks are continuous from floor to ceiling in masonry partitions to be plastered, that portion of the buck above the opening shall be covered (in lieu of the diagonal reinforcing under Article (B) above) with a strip of Metal Lath at least 12" wide and continuous from top of opening to ceiling.

Members

METAL LATH

MANUFACTURERS

ASSOCIATION

ALABAMA METAL LATH COMPANY, INC.
Birmingham 1, Alabama

BOSTWICK STEEL LATH COMPANY
Niles, Ohio

CECO STEEL PRODUCTS CORPORATION
Chicago 50, Illinois

GOLDSMITH METAL LATH COMPANY
Cincinnati 32, Ohio

MILCOR STEEL COMPANY
Milwaukee, Wisconsin

NATIONAL GYPSUM COMPANY
Buffalo 2, New York

PENN METAL COMPANY, INC.
Parkersburg, West Virginia

TRUSCON STEEL COMPANY
Youngstown 1, Ohio

UNITED STATES GYPSUM COMPANY
Chicago 6, Illinois

WHEELING CORRUGATING COMPANY
Wheeling, West Virginia



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